indicated by the direction arrow **66** to increase the speed and in the direction indicated by the direction arrow **74** to decrease the cursor speed.

[**0030**] **FIG. 3** illustrates schematically an increasing cursor speed or velocity through the menu list **80** from the bottom **82** to the top **84** wherein the cursor **86** moves with increasing incremental displacement per unit time. In the illustration in **FIG. 3**, the cursor displacement from bottom to top is shown as an increasing displacement d**1** which displacement d**1** is less than the displacement d**2** which displacement d**2** is in turn less than the displacement d**3**. In other words, the cursor moves through more menu items per unit time as the velocity increases. **FIG. 4** illustrates schematically a decreasing cursor velocity as the cursor **86** moves from the bottom **82** to the top **84** of the list **80** wherein the cursor movement is represented by the dashed lines which are shown closer together toward the top **84** of the menu list **80** indicating a slower velocity as the displacement per unit time decreases.

[**0031**] The acceleration or deceleration of the cursor **86** through the menu list **80** can also be controlled by utilizing a pressure sensor touch sensitive surface in the user input device wherein the velocity of the cursor is proportional to the pressure applied to the pressure sensor touch sensitive surface with a higher pressure resulting in an increased cursor velocity. Alternately, the velocity of the cursor may be increased in proportion to the time that a force is applied to the pressure sensor touch sensitive surface with a higher cursor velocity corresponding to the force being applied for a longer time. In other words, the velocity of the cursor is proportional to the pressure and/or the time that the pressure sensor touch sensitive surface is contacted by the user. Typical pressure sensor touch sensitive surfaces are capacitive touch sensitive sensors and are well known to those skilled in the art.

[**0032**] In a further embodiment, the upper limit of the velocity of the cursor is reset each time the user slides his/her thumb along the touch sensitive surface as described above such that successive sliding contact increases the speed of the cursor and which increases in cursor speed may be either additive or multiplicative in accordance with the desired intended result through use of appropriate control circuitry within the mobile cellular telephone **30**. The user may stop the cursor movement at any time by contacting the touch sensitive surface area **16**.

[**0033**] Turning to **FIG. 5** and still considering **FIGS. 1 and 2**, a user may change the direction of movement of the cursor **90** moving through a menu list **80** wherein as shown in the illustrated example the cursor **90** moves in an upward direction indicated by the direction arrow **96** in response to the user contacting the surface **14** causing the cursor to move upward as represented by the dash line cursor **90***a* and **90***b*. The user causes the direction of cursor movement to change by contacting the surface area **16** and then coming into contact with the surface area **18** thereby causing the cursor to move downward through the menu item list in the direction as indicated by the direction arrow **94** as represented by the movement of the dash line cursor **92***a* and **92***b*. The user input device **10** may further be configured such that the surface area **16**, in addition to providing a stop functionality, may be arranged to operate as a select mode functionality when the cursor movement is stopped for example to select an item in the menu list corresponding to the location or position of the stopped cursor and to activate the particular function associated with the menu item when contact is made with the surface area **16**.

[**0034**] Turning to **FIG. 6**, a schematic plan view of the touch sensitive user input device embodying the present invention is illustrated in an alternate embodiment wherein the user input device generally designated **100** is shown as part of a touch sensitive display screen **102** in a portable electronic device such a mobile cellular telephone generally designated **104**. The user input device **100** includes a touch sensitive surface **106** arranged to provide a number of pre-defined touch sensitive surface areas **108**, **110**, **112** with each surface area being associated with a corresponding pre-defined functionality. The user input device **100** is electrically connected to appropriate control circuitry carried within the mobile cellular telephone and is responsive to touching contact with the touch sensitive surface **106** to control the movement of a cursor **120** in a graphical user interface (GUI) such as the menu list **122** shown on the screen **102**. Movement of the cursor **120** upward and downward through the menu list **122** as indicated by the direction arrow **124** is controlled by a user tapping, sliding or being in proximity to each of the respective surface areas **108**, **110**, **112** to control the cursor movement in a similar manner as described above.

[**0035**] Turning now to **FIG. 7**, a schematic functional block diagram of a portable electronic device embodying the touch sensitive user input device of the present invention is illustrated therein and generally designated **150** wherein the user input device is shown within the dashed line box and generally indicated **152**. The portable electronic device illustrated includes a display **154** and a screen driver **156** for controlling the text, graphics or other indicia shown on the display **154**. A CPU **158** controls the functional operations of the portable electronic device **150** in accordance with an instruction set such as a computer program carried on a storage medium or carried in a memory **160** and executable by the CPU to carry out the intended selected functions and control movement of the cursor in a graphical user interface with a touch sensitive element or touch sensitive user input device as described herein. A keypad **162** is used to input text, commands or other necessary user input to operate the portable electronic device. The user input device **152** includes touch sensitive surfaces **174**, **176** and **178** respectively and are responsive to touching the contact to provide an input signal to move the on-screen element in a desired direction and with a desired velocity. The desired on-screen element movement direction is sensed by the function block **180** connected to the touch sensitive surface **174** and the touch sensitive surface **178** to provide an input signal to the detector as illustrated by the function block **182** indicating the direction and desired velocity of the screen element. The touch sensitive surface **176** is likewise connected to the detector function block **182** to provide a halting or stop signal for the on-screen element to the detector function block **182**. The detector block **182** provides its output **184** to the CPU **158** which processes the information in such a manner to provide the appropriate signals to the screen driver **156** and to the accelerator function block **164** and decelerator function block **166** as required to control the direction and velocity of the on-screen element shown and the display **154**.